

ABSTRACT OF THE DISCLOSURE

A turbine engine composite blade attachment mechanism is provided, including a blade having an airfoil section, a neck section, and a root section. The root section includes a continuous loop integral with the blade and branching out from the neck section to completely surround a root insert. The blade includes a plurality of fibers which extend from the airfoil section through the neck and around the core. The root section and neck are enveloped by a jacket having a thickness which increases from the distal side surface of the loop to the neck portion, and has an inner contour substantially aligned with the proximal side surface contour of the loop and the core. The jacket and root are disposed inside a rotary disk cavity such that when tensile loading is applied, the neck width is maintained and compressive transverse loads may be applied to the fibers to prevent lamination thereof.